

LISTING OF CLAIMS

1. (Currently Amended) A composition comprising:
a vector comprising a nucleic acid sequence encoding for an N-methyl-D-aspartate (NMDA) receptor antigen operably linked to a promoter and capable of being expressed in a subject to elicit production of antibodies, and a pharmaceutically-acceptable carrier, ~~such that the expressed antigen elicits production of antibodies in a circulatory system of the subject, wherein the antibodies pass across a blood-brain barrier into a central nervous system upon injury or disease.~~
2. (Currently Amended) The composition of claim 1, wherein the produced antibodies bind to, ~~and modify a function of~~ an NMDA receptor in the central nervous system.
3. (Canceled)
4. (Previously presented) The composition of claim 1, wherein the antigen is NMDAR1.
- 5-6. (Canceled).
7. (Previously presented) The composition of claim 1, wherein the vector is a viral vector.
8. (Previously presented) The composition of claim 7, wherein the viral vector is selected from the group consisting of an adenovirus vector, a herpes virus vector, a parvovirus vector, and a lentivirus vector.
9. (Previously presented) The composition of claim 8, wherein the viral vector is an adeno-associated virus vector.
10. (Previously presented) The composition of claim 1, wherein the composition is a preparation for oral administration.

11. (Currently Amended) A method ~~for modulating or delaying onset of epilepsy, stroke, or decreased cognition, wherein said method comprises~~ comprising the step of administering the composition of claim 1 a vector comprising a nucleic acid sequence encoding for an N-methyl-D-aspartate (NMDA) receptor antigen operably linked to a promoter and capable of being expressed in a subject to elicit production of antibodies, and a pharmaceutically-acceptable carrier to a subject, whereby the produced antibodies are capable of passing across a blood-brain barrier into a central nervous system following a neuronal insult.

12. (Currently Amended) A method ~~for ameliorating or delaying onset of epilepsy, stroke, or decreased cognition in a subject~~ comprising:
administering a composition to a subject comprising a vector comprising a nucleic acid sequence encoding for an N-methyl-D-aspartate (NMDA) receptor antigen, and a pharmaceutically-acceptable carrier, wherein the antigen elicits the production of antibodies in a circulatory system of the subject which ~~modify the function of bind to~~ an NMDA receptor in the central nervous system ~~to ameliorate or delay onset of epilepsy or stroke in the subject.~~

13. (Canceled)

14. (Original) The method of claim 12, wherein the antigen is NMDAR1.

15. (Canceled)

16.-19. (Canceled)